To: DeLancey, George J CIV CELRL CELRD (US)[George.J.Delancey@usace.army.mil]
From: Schaller, Andrea
Sent: Thur 5/4/2017 1:07:59 PM
Subject: RE: Seven Hills HGM technical comments

You can. If you get a chance can you give me a call today?

-----Original Message-----
From: DeLancey, George J CIV CELRL CELRD (US) [mailto:George.J.Delancey@usace.army.mil]
Sent: Thursday, May 4, 2017 7:47 AM
To: Schaller, Andrea <schaller.andrea@epa.gov>
Subject: RE: Seven Hills HGM technical comments

You sending this to them or you want me to.

-----Original Message-----
From: Schaller, Andrea [mailto:schaller.andrea@epa.gov]
Sent: Wednesday, May 03, 2017 4:46 PM
To: DeLancey, George J CIV CELRL CELRD (US) <George.J.Delancey@usace.army.mil>
Subject: [Non-DoD Source] Seven Hills HGM technical comments

George,

I looked through the information submitted by Peabody for the proposed Seven Hills Site and the proposed mitigation sites. I discussed this with Bill Ainslie and wanted to share some technical feedback for your review. Low Gradient Riverine Wetlands in Western Kentucky (WKY Guidebook) approach is based upon estimating the functions of wetlands, compared to reference wetlands of similar type, using indices based on field measures of indicators. These indicators are called variables and are combined in explicit ways to essentially represent how specific functions are operating on a given site compared to reference standard wetlands. Based on the structure of the HGM Approach, EPA evaluated, to the extent practical, how the field data was collected, how this data was interpreted using the variable subindices, how these variable subindices were combined to arrive at functional capacity indices, and how the functional capacity indices were interpreted to assess the baseline condition of the site and the proposed mitigation site.

Our overall observations were as follows:

1) We noted that the data sheets were incompletely filled out and the consultant's report lacked a written description of the methodology used. Explaining the methodology used is important since several subindices offer several options for calculating the scores.

2) We noted that the consultant's report lacked a written discussion which details and explains the results as well as justification and rationale for ecological changes as reflected in this rapid assessment method.

3) We noted that Eco-tech stated that the proposed Seven Hills site has not changed much since the 2006 and there has been no anthropogenic impacts on the site since that time. Eco-tech also noted successional changes in cover type led them to move some plots.

Based on our review of the consultant's report, raw data and scores below are the key areas of concern with regard to assessments conducted for the Seven Hills site and proposed mitigation sites. A written methodology and robust discussion of results and comparison would likely address some of the concerns identified below.

Seven Hills Baseline

1.) Functional Capacity Indices should be weighted by area and cover types should be segregated into partial wetland assessment areas.

2.) Direct comparison of 2006 and 2017 data

3.) Presentation and comparison of plots as a FCI means

4.) Representative Assessment of the Export Carbon function (Vsurfcon)

5.) Units of measurements

6.) Understanding changes in sub index measurement and scores. I listed the subindex where I have questions in the order described in the Appendix B for ease of review.

Mitigation Sites

1.) Difficult to discuss appropriateness and feasibility of mitigation without any details on planned mitigation actions and due to outstanding questions regarding how the methodology was applied

2.) Limited mitigation in the Pigeon Creek watershed, i.e., same watershed as where the impacts would occur

3.) Limited connectivity of mitigation sites to other resources

I attached a document that describes in more detail the key areas of concern listed above. Please let us know if you would like to discuss in more detail or have questions.

Thank you,

Andrea

Andrea Schaller

USEPA-Region 5

77 W. Jackson Blvd, WW-16J

Chicago, IL 60604

schaller.andrea@epa.gov <mailto:schaller.andrea@epa.gov>

312-886-0746